

Scope of Work: MBTA Transit Analysis Methodology and Mitigation Strategies

I. Introduction/Project Background

The Massachusetts Department of Transportation (MassDOT)'s Office of Transportation Planning (OTP) is working with the Massachusetts Bay Transportation Authority (MBTA) to update the methodology the agency currently uses to estimate the impacts of land use developments, including public and private developments, on the delivery and performance of MBTA services.

Although land use developments (both public and private and inclusive of commercial, residential, retail, mixed-use, and other types) can have significant impacts on the delivery of public transportation services, there is no standard methodology to estimate these impacts in the Greater Boston region. Therefore, establishing an equitable and comprehensive strategy for evaluating service impacts is of particular interest to the agency. The deliverables from this project will provide the MBTA with the information needed to inform new strategies and procedures for developer mitigation. They could also inform new strategies and procedures for agencies beyond the MBTA, including MassDOT, Regional Transit Authorities (RTAs) and other transit providers.

This project is expected to take 12 months from Notice to Proceed. The anticipated budget for this project is \$500,000.

IA. Deliverables

The selected consultant team is expected to produce and deliver discrete products at the conclusion of each Task as listed below.

In addition, the selected consultant team will be required to share and transfer all data and resources used in the compilation and development of each deliverable where relevant and applicable (as determined by MassDOT). Qualitative data and resources include but are not limited to reports, articles, scholarly research, interviews, and focus groups. Quantitative and spatial data include but are not limited to spreadsheets, statistical software files, and shapefiles.

IB. Data

All data proposed for use in this project must be reviewed and approved by OTP independently of this scope. MassDOT owns and has access to data that can and may be used as part of this project; the selected consultant must review the data currently owned and retained by MassDOT and privilege this data over outside or additional resources. Should additional data be considered required or beneficial, all proposed data procurements must be approved by OTP in addition to this scope prior to Notice to Proceed. (OTP reserves the right to use and/or procure new supplemental data that may become available over the course of the study).

Should a data procurement be found to be beneficial or necessary by OTP, MassDOT will retain exclusive and non-transferable ownership of the procured data beyond applications to the immediate project. The rights and privileges associated with the procured data will be at the sole discretion of OTP. This means that OTP retains the right to make use, and have Designated Users make use, of any

procured data for purposes deemed worthwhile for enhancing transportation planning activities in the Commonwealth of Massachusetts.

IC. Project Management and Administration

The selected consultant must schedule a kickoff meeting with the MassDOT Project Manager and other staff (as needed) upon Notice to Proceed. At the kickoff meeting, the selected consultant will recommend the number, frequency, and format of ongoing progress meetings with MassDOT staff as well as specific timelines and timeframes for turnaround and MassDOT review of draft and/or final versions of deliverables, when not pre-defined by MassDOT.

At the kickoff meeting, the selected consultant must also review the project Data Quality Control and Assurance Plan. The Data Quality Control and Assurance Plan should review the steps that the consultant expects to take to review and validate the work associated with the deliverables of this project.

Budget status and spending updates should be integrated into the regular check-in process with MassDOT Project Management at a frequency determined at the kickoff meeting. The selected consultant must notify MassDOT Project Management if forecasted spending in any one budget area is outpacing initial estimates.

II. Project Tasks

Task 1. Working Group Identification, Engagement Plan, and Kickoff.

Task 1 will identify members of an internal Working Group and develop an ongoing Engagement Plan for keeping stakeholders engaged and apprised with the progress of the project. The Working Group will be a critical backstop and sounding board with respect to the feasibility and implementation of the framework, methodology, and tool. The Working Group will be comprised of select staff from MassDOT OTP, the MBTA, and the Office of Performance Management and Innovation (OPMI). Working Group meetings should be held throughout the course of the project and especially at key junctures when input and feedback is required. A presentation to the Working Group will be expected at the conclusion of each task.

Task 1 is expected to take 3 weeks, with the first Working Group meeting to be held within one month of the Notice to Proceed.

Task 1 Deliverables:

- Final list of Working Group participants
- Working Group Engagement Plan
- Kickoff Meeting
- Ongoing presentations to the Working Group throughout project

Task 2. Peer Agency Review.

In Task 2, consultants will conduct a review of peer transit agency policies related to developer mitigation. This review will include how transit agencies evaluate operational, facility, and land use

impacts (including how agencies estimate land value), how transit agencies calculate and communicate the economic value of transit to developers, and the different types of financial compensation strategies transit agencies use for developer mitigation, including the mechanisms needed for these strategies and the advantages and disadvantages of each strategy. Consultants will also review the legal authorities of other transit agencies to identify statutory limitations, especially as they relate to the authorities held by the MBTA.

Task 2 includes interviews with peer agencies by phone or web meeting to better understand program goals and challenges, and to solicit recommendations for advancing developer mitigation policies at the MBTA.

Task 2 will also review available research and case studies from peer transit agencies, federal and state agencies, and research institutions on this topic.

Task 2 is expected to take 2.5 months.

Task 2 Deliverables:

- A brief memo of findings.
- Electronic versions of all research and documentation reviewed under this task.
- Summary interview transcripts.

Task 3. Review of Relevant Regulations and Policies

Task 3 will include a comprehensive review of state, federal and local laws, regulations, and policies as they relate to the legal basis for the MBTA to impose mitigation on land use developments that affect provision of MBTA transit services. All relevant MBTA licenses, approvals, and permits should be reviewed for applicability.

Task 3 will occur concurrently with Task 2 and is expected to take 2.5 months.

Task 3 Deliverables:

- A brief memo of findings.
- Electronic versions of all research and documentation reviewed under this task.

Task 4. Methodology for Estimating Land Use Impacts on Transit Services.

In Task 4, consultants will create draft and final versions of the methodology for estimating the impact of land use developments on public transportation services provided by the MBTA. These impacts will be separated into two categories: one, operational impacts on MBTA services and two, impacts to MBTA facilities. The methodology should be based on the MBTA Service Delivery Policy (SDP) and complementary to the methodologies OPMI created for buses, rapid transit, and commuter rail. The methodology will:

- Identify the types of data and develop methodology (ies) needed to estimate the impact of new developments or expansions/upgrades to existing developments on MBTA operations;
- Estimate the cost to mitigate the impact on MBTA operations;

- Identify the types of data and develop methodology (ies) needed to estimate the impact of new developments or expansions/upgrades to existing developments on MBTA facilities; and
- Estimate the cost to mitigate the impact on MBTA facilities.

The draft methodology will be thoroughly reviewed and vetted by MassDOT and MBTA staff before being used as the foundation for the tool that will be developed in Task 5.

Task 4 is expected to take 3 months.

Task 4 Deliverables

- Draft and final methodology for estimating development impacts on transit services, prepared in Microsoft Word.
- Summary presentation of the final methodology, prepared in Microsoft PowerPoint.

Task 5. Tool Development.

Task 5 involves the development of a web-based tool that reflects the final methodology identified in Task 4. The consultant will work with the MBTA and OTP to determine the format and operational design of the tool. The tool will allow the input of data reflecting characteristics associated with proposed developments and will output data and information related to estimated service delivery and facility impacts and costs. The tool should be designed with broad applicability to MBTA projects and be user-friendly; for example, the MBTA and its partners should be able to add and replace datasets and adjust model parameters within the tool easily.

We expect that the tool will be created in MassDOT/MBTA web development environments, unless there is a valid and approved rationale otherwise. In the case that the tool is not created in a MassDOT/MBTA web development environment, the selected consultant should draft a plan and meet with MassDOT project leadership to discuss how and when the tool will be transferred to MassDOT/MBTA platforms.

The tool will undergo substantial review and testing prior to final approval. We expect that the tool will be tested and validated using historical (and possibly current/ongoing) land use developments in the MBTA service area. The MBTA and OTP will provide direction to the consultant team upon completion of the draft tool. The tool is meant to be iterative, and the final version produced in this task is expected to evolve based on the needs of the MBTA as identified during tool development.

Consultants will also provide clear instructional materials for this tool that the MBTA can use to train their staff to use it. The consultant will also be expected to provide technical assistance for initial maintenance and quality assurance of the tool for up to 2 months following final delivery of the tool.

Task 5 is expected to take 3 months.

Task 5 Deliverables:

- Web-based tool that corresponds with the final, approved methodology for estimating transit service impacts resulting from private developments
 - o Tool should undergo thorough testing by consultant team and the MBTA before final approval
- Guidance document, prepared in Microsoft Word, to accompany the tool.

- All underlying data, scripts, etc. to operate and build the tool

Task 6. Framework for Developer Mitigation Strategies

Task 6 will create a framework the MBTA can use to identify when and how to use the methodology and/or tool, as described in Tasks 3 and 4. The framework will identify potential use cases that will trigger use of the methodology and/or tool on a given project, such as local, state and federal requirements (i.e., the Massachusetts Environmental Policy Act/National Environmental Policy Act) and will propose potential options of when the framework should be implemented in a project's process.

Additionally, Task 6 will provide use case examples of how the MBTA may approach developer mitigation and the strategies they may employ. These use cases will be informed by current MBTA policies and procedures, and by the data collected in Tasks 2 and 3. It may be necessary to host interviews and discussions with MBTA staff to fully develop these cases. The goal of the use cases is to describe the tools and strategies available to the MBTA and how they can be used.

The MBTA may use these deliverables as the foundation for future work to create resources for the MBTA that will help them in mitigation and negotiation discussions with developers.

Task 6 is expected to take 2.5 months.

Task 6 Deliverables:

- Summary interview transcripts (if applicable).
- Draft and final framework, prepared in Microsoft Word.
- A summary of uses cases for the methodology, prepared in Microsoft Word.
- Formal presentation (prepared in Microsoft PowerPoint) to review project development and final deliverables.